passant, a human case directly traceable to squirrels has recently occurred. Interesting as all this is from a scientific standpoint, the question naturally arises as to what practical application is to be made of these discoveries. Primarily, it may be said that a focus for plague is being dealt with which, if allowed to continue, will stamp California as an endemic plague center, and it further appears that the squirrel is the animal in which the disease is kept alive to spread to rats and thence to man. The natural deduction is, therefore, that the ground squirrel must be eradicated. This means an extensive propaganda of education to the end that the individual ranch holder will lend his thorough co-operation. This has already been launched by Passed Assistant Surgeon W. C. Rucker, who is in charge of the field work, and bids fair to yield excellent results. An extensive article by him upon this subject appears in the Public Health Reports for August 27th and it should be read by every physician in California. There is no telling how far the infection has spread and what other counties in the state may be harboring the disease in rodent form. We must, therefore, be on the lookout for human or rodent cases and should report to the health authorities the occurrence of suspicious cases in our practice or a high death rate among ground squirrels.

DIABETES IN NEW YORK CITY.

The impression that glycosuria and diabetes are not "rare" or "uncommon," as stated in some textbooks, has in recent years gained a strong hold on the minds of many physicians. While many statistics have been printed concerning the incidence of these conditions, the great variance of the figures have made it difficult to arrive at any accurate conception of the truth. So much so has this been the case that Naunyn, in his book on Diabetes, says that almost any figures desired can be selected from the various estimates, and that only out of courtesy to the authors does he quote any of them. For the most part such statistics are based on hospital and mortality records, and while useful in some directions, it must be realized that they give no information as to the actual incidence of either glycosuria or diabetes in the community at large, for many diabetics never enter a hospital and many die from other diseases.

The recent study of Ballinger (the Archives of Internal Medicine, May, 1909), however, throws some light on this interesting question. His conclusions are based on the records of one of New York's large insurance companies. Between the years 1902 and 1907, 71,729 adults were examined medically by this company. They belonged, naturally, to the better social class, which shows, as is generally recognized, a greater incidence of diabetes than does the poorer class of people. Probably 95% or more of them were men between the ages of 18 and 60, and of course they were practically all on a mixed diet (one containing carbohydrates). The number showing glucose on one or more examinations was 2,043 or 2,840 per 100,000. Of these 681 showed between 1 and 12 per cent, and 1362 less than 1 per cent of sugar. If we consider the presence of 1 or more per cent of sugar in an office specimen of urine, a criterion of the existence of diabetes, the incidence of diabetes per 100,000 of population would be 950. Such a criterion, however, is obviously a very arbitrary one, but not without some justification, as pointed out by Barringer. Experience has shown that persons having 1 per cent or more of sugar on an ordinary diet containing slight or moderate amounts of carbohydrates, are under strong suspicion and probably have diabetes. Moreover, Barringer and Roper have shown that of a group of twenty patients with slight glycosuria, nine or 45 per cent developed diabetes at the end of five years.

Figuring on the basis that 50 per cent of the 1362 cases with less than 1 per cent of sugar in the urine, Barringer finds a total of 1895 per 100,000 of population with diabetes. These figures are nothing short of startling when we consider the statistics of Osler, who says that among 99,000 patients admitted to the medical wards and medical dispensary of the Johns Hopkins Hospital, there were only 226 cases of diabetes or 228 per 100,000 of medical admissions; or the last mortality statistics by the United States Census Bureau, which show between 1901 and 1905 a yearly average of 11.6 deaths from diabetes per 100,000 of population.

POST-OPERATIVE PULMONARY COMPLICATIONS.

From time to time the subject of post-operative lung complications is brought in review before the surgical world. during the past few months a number of noteworthy articles have appeared. Among these, the two most suggestive to the writer are those by Munro in our own land, and by Ranzi, of Vienna. The former deals exclusively with bronchitis and pneumonia, and the latter with lung conditions of an embolic nature. Both papers more or less clearly point the same moral, and that rather a different one from the time honored conception of post-operative chest complications.

It has been the habit for a long time for surgeons to shift the responsibility of these disconcerting contingencies to the shoulders of the anaesthetist. The irritative properties of ether are likewise accused of marring the results of operations that were expected to be successful. The complacent comfort of having these scapegoats of the surgical conscience, is being rudely torn from our all too short list of consoling excuses. The first threat that such an invasion of our vested rights was coming, was seen in the results of operations after local and spinal anaesthesia. As regards the subject at issue, the results were no whit better. Here was food for thought.

The answer to the puzzle seems to be pretty clearly worked out, and necessitates a shifting of the direction of the finger of accusation from the anaesthetist and anaesthetic, to the operator himself. It comes back, as so many other matters come back, to the subject of technic. In other words, with the exception of operations about the mouth and throat,

which involve the sensory or motor control of the upper organs of deglutition and respiration, and so allow a real aspiration pneumonia, the great majority of lung complications are of an embolic nature, and have their origin at the site of operation. The two great factors are wound infection, either gross or hidden, and trauma to veins. Both causes promote thrombosis and embolism, and the lung lesions referable to them may be single, as an infarct or abscess, or multiple, as a septic pneumonia, or multiple infarcts.

Certain operations necessitate the soiling with bacteria of large wound surfaces, such, for example, are those on the rectum and the laying of fecal fistulae. It is exactly these cases that in all hands are responsible for a strikingly large part of the lung complications. Then there is a group following so-called clean cases. In many of these, handling and tying of vessels is a feature, notably in pelvic work, and in the radical cures of hernias containing omentum. Here it is the custom of many operators to seize large masses of tissue in strong forceps, and to tie in bunches with strong catgut. How common it is for the operator to complain bitterly of the weakness of the catgut. Such a disposition of ligatures leads surely to a much more extensive formation of thrombus than necessary and invites embolism.

Years ago, one of our older American surgeons, attacked the problem in his clinic by introducing as a ligature for all clean cases, a fine silk tie that would break at a given low tension. By means of this strategy, he compelled his assistants to pick up small bits of tissue, and to isolate the individual vessels to be tied. Also the silk knot tied in this way was so small as to offer little foreign material, and could not serve as a culture medium for stray bacteria which might settle exactly at the mouth of a vessel, and infect the thrombus formed by the ligature. This method, however, has found many more critics than imitators, on account of its requiring more pains in its execution. It is at least interesting in connection with our subject.

But after all, the most important single demand is for an aseptic technic, for it is wound infection that precedes most lung complications and thromboses. Even when a wound heals per primam, we can conceive of infection, potent enough to attack thrombi in the ends of cut veins, and yet not virulent enough to cause breaking down of a wound in the presence of the juices of the more resistant tissues. Many surgeons who have an otherwise good technic, expose a large skin area around the wound. This is merely one of the negligences that invite wound infection.

It is superfluous to say that we should consistently and patiently struggle to eliminate every source of danger to our patient. Is it possible that some day the occurrence of post-operative lung complications may accuse the operator just as the occurrence of puerperal fever accuses the obstetrician to-day?

HYSTERICAL PAROXYSMAL OEDEMA.

Under the name of "Hysterical Paroxysmal Oedema," Edgeworth has recently described (The Quarterly Journal of Medicine, 1909, No. 2) some interesting cases of angio-neurotic oedema, characterized by the repeated occurrence of transitory oedema affecting "geometrical" or "segmental" areas of the body-surface, associated in some instances with disturbances of sensation, hysterical in type. These cases present the features of a sub-cutaneous oedema of fairly sudden onset, raising the surface of the skin from one-quarter to three-quarters of an inch above its ordinary level. The whole area becomes affected at the same time—the oedema is not a spreading one. The surface of the skin is generally natural in color, but in some cases hyperæmic, or white, or purplish. The oedema is firm and non-pitting when at its height; during its subsidence it becomes softer. No bullæ are formed on the skin and blebs are rare. The oedematous area is almost invariably sharply marked off from the adjacent normal surface by an abrupt edge.

The occurrence of the oedema generally causes no pain, although in some cases there is a sensation of itching or burning at the beginning of the attack. The duration of each attack varies from a few hours to several days and occasionally lasts several weeks. The areas affected by the oedema are not supplied by any branch or branches of the cranial or spinal nerves nor by those supplied by cranial or spinal nerve-roots (segmental areas of Thornburn, Head and Sherrington). They correspond with natural divisions of the body, e. g., mamma; or with areas covered by articles of clothing, e. g., stocking, sock, glove—that is, with the areas called "geometrical" or "segmental" by writers on hysterical phenomena. In some cases disturbances of sensation—partial or complete loss of sensibility to touch, painful or thermic stimuli—co-existed with the attacks of the oedema. These disturbances are evidently not due to the mechanical effects of the oedema, since the area of distribution never corresponded exactly to that of the oedematous swelling. The areas over which this loss of sensibility occurred were also of the "geometrical" type, though differing from those of the oedema in their greater extent. In other cases the fields of vision are contracted.

The peculiar distribution of the oedema in this group of cases, and its association, in some, with disturbances of sensibility, suggested that it was of hysterical origin. This conclusion is supported by comparison with the hysterical chronic oedema first described by Sydenham in 1682, and subsequently by Charcot and his pupils. This affection is rarely found as an isolated phenomenon; it is generally superimposed on some other hysterical manifestation, such as arthralgia, paralysis, or contracture. It is of variable aspect, and affects the whole circumference of the involved part. It is generally accompanied by disturbances of sensibility, which are apt to take the form of hyperæsthesia in arthralgias, anæsthesia and thermo-anæsthesia when superimposed on a paralysis or contracture.